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EXAMINER

NOLAN, DANIEL A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 03/02/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,865

Applicant(s)

KORALL ET. AL.

Examiner

Daniel A. Nolan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

2. The filing of 27 January 2004 was applied to the following effect:
 - The title was changed as indicated and the objection is withdrawn as satisfied.
 - The specification was changed as indicated and the objections are withdrawn.
 - The claims were changed as indicated and the objections are withdrawn.
 - Claim 46 was added and examined on the merits.

Response to Arguments

3. Applicant's arguments filed 27 January 2004 have been fully considered but they are not persuasive.
 - Regarding the issue that the motivation provided is not adequate to support the rejections (pages 29 & the 1st paragraphs page 30, and the last paragraph page 34 to the 1st paragraph page 36), the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary

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references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what motivates the disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosure. *In re Bozec*, 163 USPQ 545 (CCPA) 1969.

- Further, applying the clear error standard, the rejections are maintained. Federal Circuit uphold the lower court's decision that one skilled in the art would be motivated to combine two prior art inventions, in the case of claim 1, Kupiec & Anderson et al because the prior inventions were directed at solving the same problem. The Federal Circuit said, "A court or examiner may find the motivation to combine references in the nature of the problem to be solved." See *in re Ruiz v. A.B. Chance Co.* 03-1333 (29 January 2004).

4. The argument that neither Kupiec nor Anderson et al disclose a "Query Formulation Unit" happens not to be the case, as evinced by the "Query Constructor" depicted in the illustrative disclosure of Kupiec (70 in figure 2, column 6 lines 29-30).

5. In response to applicant's argument that the references fail to show certain features of applicant's invention:

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- It is noted that the features upon which applicant relies (i.e., *Hierarchical manner* – last line page 31 and *determining whether the question is text or speech* – 2nd line page 33) are not recited in the rejected claim(s). It is further noted, regarding the issue raised that the prior art fails to distinguish between voice- and text-based input, the claim as phrased in the alternative requires only determining at least one of either.

The argument that the features upon which applicant relies (i.e., *determining whether the connection is voice-based or text-based* – 5th line page 34) are likewise not recited in the rejected claim(s).

- It is further noted with regard to applicant's argument concerning claims 7-9 and 10-12, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *to determine how the user is connected* – 1st full paragraphs on both pages 38 & 39) are not recited in the rejected claim(s).
- It is further noted in response to applicant's argument that the references fail to show certain features of applicant's invention (for claims 41-45 pages 51-52), it is noted that the features upon which applicant relies (i.e., additional instructions, co-occurrence & the hierarchical approach) are not recited in the rejected claim(s).
- In this last and each of the previous instances cited above, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. The argument that Kupiec's request to repeat the quest (last line page 32) does not meet the requirement for further input is belied by the circumstances prompting such a request: It would be obvious for a request to repeat the question to be for *further* disambiguated input because repeating the original request would have the same problematical result.

7. The argument that Kupiec does not mention ROM is not at issue (2nd paragraph page 6) as Anderson et al would incorporate Kupiec to conserve ROM. Even with due consideration given to the other interpretation, ROM is representative of intrinsic computer resources that are to be used judiciously and conserved where practicable by a person of ordinary skill in the art of signal processing at the time of the invention.

8. In response to applicant's argument that there is no motivation to combine (2nd paragraph page 40, last paragraph page 41 to 1st paragraph page 42, last paragraph page 44, 1st full paragraph page 45), the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

9. Applicant's argument that the prior art fails to address *having any messages at all* (1st line page 45) is not the case, as evinced throughout the Emerson et al invention for an *Integrated Message Service System*.

10. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (1st full paragraph page 48), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim Rejections - 35 USC § 103

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Kupiec & Anderson et al

12. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec (U.S. Patent 5,500,920) in view of Anderson et al (U.S. Patent 4,579,533 A).

13. Regarding claim 1 as understood by the Examiner, the invention for *semantic co-occurrence filtering for speech recognition and signal transcription applications* by Kupiec reads on the feature of the claim for *an interface for remote user input for reading a database* as follows:

- Kupiec (column 4 lines 36-37) reads on the feature of a *speech recognition unit for recognizing a human speech input*;
- Kupiec (column 4 lines 61-62) reads on the feature of a *data recognition unit for recognizing a remote (column 6 line 26) data input*;
- Kupiec (figure 6 – with *reformulation* requiring *formulation*) reads on the feature of a *query formulation unit, coupled to that speech and data units, and operable both for formulating a searchable query from a recognized input by at least one of that speech and data recognition units, and (column 11 line 6) for prompting that automatic question unit to elicit further input from the user; and*

- Kupiec (7th line from bottom of column 6) reads on the feature of *wherein the interface is associated with a database to search that database using that recognized input.*

Kupiec does not speak to determining whether the mode of output is *speech or text*. Anderson et al, with the *method of teaching a subject including use of a dictionary and translator*, reads on the feature of *an automatic question unit operable to determine whether a user is connected via at least one of a voice-based and a text-based capable communication link* (claim 1 column 9 lines 56-64), *and for eliciting input from a user in accordance with that determination* (as, *providing responsive* in line 56). It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Anderson et al to the device/method of Kupiec so as to keep ROM requirement low by eliminating the need to program alternatives to patently obvious conditions.

14. Regarding claim 2, the claim is set forth with the same limits as claim 1.

Kupiec (column 22 line 25) reads on the feature that *speech recognition unit comprises a speech-to-text converter operable to convert a user speech input into query information for that database, and* (column 1 line 45) that *database comprises text entries.*

15. Regarding claim 3, the claim is set forth with the same limits as claim 1.

Kupiec reads on the feature of *a speech-to-phoneme converter* (50 in figure 2) *operable*

to convert a user speech input into query information for that database (column 6 lines 53-55), and wherein that database comprises entries made up of groups (the "phones" of column 9 lines 29-37).

16. Regarding claim 4, the claim is set forth with the same limits as claim 1. Kupiec reads on the feature of *combined speech-to-text converter* (column 6 line 40) *and speech-to-phoneme converter* (column 6 lines 44-50 & column 9 lines 38-51), *operable to convert a user input into query information* (column 6 lines 53-58) *for that database.*

17. Regarding claim 5, the claim is set forth with the same limits as claim 1. Kupiec reads on the feature *to determine a level of confidence of an output of that speech recognition unit* (with the "hypothesis scoring" of column 12 lines 15-22).

18. Regarding claim 6, the claim is set forth with the same limits as claim 1. Kupiec (column 2 line 29) reads on the feature *to provide speech and text outputs.* Kupiec does not speak to determining whether the mode of output is *speech or text.* Anderson et al (211→217/218 figure 7 with column 8 lines 29-31) read on the feature *for selecting one of the speech and text outputs based on a user's data receipt ability* (as provided for before in response to claim 1 with reference to column 9 lines 56-64).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of

Anderson et al to the device/method of Kupiec so as to keep the ROM requirement low by defaulting to eliminate non-essential programming.

Kupiec, Anderson et al & Dutton et al

19. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Dutton et al (U.S. Patent 6,138,100 A).

20. Regarding claim 7, the claim is set forth with the same limits as claim 6. Neither Kupiec nor Anderson et al speak to application in *mobile phones*. The *interface for a voice-activated connection system* of Dutton et al reads on the feature that *the interface is "interface able" to a **mobile** telephone data facility*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Dutton et al to the device/method of Kupiec & Anderson et al so as to connect users over a network.

21. Regarding claim 8, the claim is set forth with the same limits as claim 1. Neither Kupiec nor Anderson et al speak to application in *mobile phones*. Dutton et al reads on the feature of a *WEB, WAP, plain text or SMS* (with the "HTML" of column 7 lines 27-42), which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of

Dutton et al to the device/method of Kupiec & Anderson et al so as to be able to search all available resources.

22. Regarding claim 9, the claim is set forth with the same limits as claim 1. Neither Kupiec nor Anderson et al speak to *messaging*. Dutton et al (column 2 line 37) teaches the feature that *the interface is "interfaceable" to a messaging service*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Dutton et al to the device/method of Kupiec & Anderson et al so as to enable benefits that naturally become manifest as vocabularies increase.

Kupiec, Anderson et al & Meador III et al

23. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al (U.S. Patent 5,638,425 A).

24. Regarding claim 10, the claim is set forth with the same limits as claim 1. While Kupiec does address *internal phonetic spelling* and of a *query formulation unit to submit a recognized speech input as a query to search that database* (addressed in response to the same feature in claim 1), neither Kupiec nor Anderson et al provide detail on requesting spelling from the user. The *automated directory assistance system using word recognition and phoneme processing* of Meador III et al (124→130 in figure

7) reads on the feature that, *in the event of failure to obtain a match (76→"B" in figure 3), to prompt that automatic question unit to ask the user to **spell** that recognized speech input.* It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec & Anderson et al so as to overcome unacceptably low recognition probability levels.

25. Regarding claim 11, the claim is set forth with the same limits as claim 10. Kupiec (column 10 lines 39-68) reads on the feature for *associative linkage between associated names for widening searches on the basis of variations of input names.*

26. Regarding claim 12, the claim is set forth with the same limits as claim 10. Kupiec & Anderson et al do not speak to applications so are silent on the issue of *contact points*. Meador III et al (last name, street, number, etc. in column 8 lines 55-57) reads on the feature that the *database is a contact directory having at least one contact point for each of a plurality of searchable database entries.* It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec & Anderson et al so as to further distinguish between similar items.

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Kupiec, Anderson et al, Meador III et al & Imielinski et al

27. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al and further in view of Imielinski et al (U.S. Patent 6,240,448 B1).

28. Regarding claim 13, the claim is set forth with the same limits as claim 12.

Neither Kupiec, Anderson et al nor Meador III et al address *output formats*. With the *audio access to information in a wide area computer network*, Imielinski et al (column 11 lines 33-40) read on the feature of *a hierarchy of contact point types is provided to define which of that contact points to output first*. It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Imielinski et al to the device and/or method of Kupiec, Anderson et al & Meador III et al to make the appearance of the response agree with the query.

Kupiec, Anderson et al & Meador III et al

29. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al.

30. Regarding claim 14, the claim is set forth with the same limits as claim 12.

Kupiec & Anderson et al do not mention *Boolean searching*. Meador III et al (last name, street, number, etc. in column 8 lines 57-59) reads on the feature that *a contact point is*

usable as an input to obtain a searchable database entry, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec & Anderson et al so as to produce a combined probability that will determine the satisfactory candidate.

Kupiec, Anderson et al & Ziauddin et al

31. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Ziauddin et al (U.S. Patent 6,581,055).

32. Regarding claim 15, the claim is set forth with the same limits as claim 1. Kupiec & Anderson et al do not mention *database searches*. Ziauddin et al (column 4 lines 40-45) read on the feature that the *question unit is programmable with a plurality of questions as a function of the size of the database*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Ziauddin et al to the device/method of Kupiec, Anderson et al so as to minimize the user effort.

33. Regarding claim 16, the claim is set forth with the same limits as claim 15. Kupiec & Anderson et al do not mention *database searches*. Ziauddin et al (column 10 lines 47-51) reads on the feature that *questions are storable in a hierarchy* (the "rank" of

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column 51-58) *which corresponds to a predetermined search strategy for the database* (column 4 lines 1-3), *and wherein that automatic voice question unit is operable to stop asking questions* (by virtue of those "portions being disabled" in column 4 lines 36-39) *as soon as sufficient information has been obtained to terminate a database search.* It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Ziauddin et al to the device/method of Kupiec & Anderson et al so as to avoid profitless interrogation.

Kupiec, Anderson et al, Ziauddin et al & McDonough et al

34. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Ziauddin et al and further in view of McDonough et al (U.S. Patent 5,625,748 A).

35. Regarding claim 17, the claim is set forth with the same limits as claim 16. Kupiec, Anderson et al do not mention *database searches* and Ziauddin et al is silent as to use of human operators. The *discriminator using posterior probability or confidence scores* of McDonough et al (58→20 in figure 5) reads on the feature that *the interface is operable to connect a user to a human operator when that hierarchy of questions has ended* (column 12 lines 12-13) *and a database search has not been terminated.*

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of McDonough et al to the device/method of Kupiec, Anderson et al & Ziauddin et al so as

to extend the search/selection ability beyond the limitations of the computer programming.

Kupiec, Anderson et al, Ziauddin et al & Meador III et al

36. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Ziauddin et al and further in view of Meador III et al.

37. Regarding claim 18, the claim is set forth with the same limits as claim 16. Kupiec & Anderson et al do not mention *database searches* and Ziauddin et al is silent as to use of human operators. Meador III et al (column 5 lines 4-8) reads on the feature that *the interface is operable to connect a user to a human operator when a user input is not translatable into information usable for searching that database*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec, Anderson et al & Ziauddin et al so as to not have a search/selection process limited by the scope of the original programming.

Kupiec, Anderson et al & Meador III et al

38. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al.

39. Regarding claim 19, the claim is set forth with the same limits as claim 1.

Neither Kupiec nor Anderson et al invoke human interference. Meador III et al (with the "probability comparator" of column 3 lines 23-27) reads on the feature of *a confidence level determiner, associated with that speech recognition unit, and operable to **determine** a level of confidence for a recognition instance of that speech recognition unit, that confidence level determiner being further operable to connect a user to a **human operator*** (column 5 lines 4-8) *when a user input is associated with a confidence level lower than a predetermined confidence threshold.* It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec & Anderson et al so as to conform to the operator-assisted information procedures that are familiar to users.

Kupiec, Anderson et al & Meador III et al

40. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al.

41. Regarding claim 20, the claim is set forth with the same limits as claim 12.

Kupiec & Anderson et al do not mention *call completion*. Meador III et al (column 2 line 25) reads on the feature of *a **switch** for connecting a user to a **contact point** retrieved from that database*. It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of

Meador III et al to the device/method of Kupiec & Anderson et al so that the caller is prompted as few times as possible.

Kupiec & Anderson et al

42. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al.

43. Regarding claim 21, the claim is set forth with the same limits as claim 1. Kupiec (column 6 line 26) reads on the feature of *a data exchange mechanism operable to bring about data **interactivity** between that database and a remotely located user database.*

Kupiec, Anderson et al, Meador III et al & Emerson et al

44. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al and further in view of Emerson et al (U.S. Patent 4,612,416 A).

45. Regarding claim 22, the claim is set forth with the same limits as claim 14. Kupiec, Anderson et al & Meador III et al do not involve applications; so do not include the *format of message headers*. With the *integrated message service system*, Emerson et al (column 13 line 62) reads on the feature *to insert an identification of a caller into a header of a message left by that caller*, which would have made it obvious to a person

of ordinary skill in the art of speech signal processing at the time of the invention to apply the method and/or teachings of Emerson et al to the device and/or method of Kupiec, Anderson et al & Meador III et al so as to identify the message for processing before opening, as *skipping or reporting status*.

Kupiec, Anderson et al, Meador III et al & Dutton et al

46. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al & further in view of Meador III et al & further in view of Dutton et al.
47. Regarding claim 23, the claim is set forth with the same limits as claim 14. Kupiec, Anderson et al & Meador III et al do not speak to applications so are silent on the issue of *contact points*. Dutton et al (column 2 lines 44-50) reads on the feature that *contact point is a telephone number*. It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Dutton et al to the device/method of Kupiec, Anderson et al & Meador III et al so as to enhance the flexibility of a VAC with automatic dialing, for activity accounting and to provide a discriminator to distinguish between similar selections.

Kupiec, Anderson et al, Meador III et al & Emerson et al

48. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Meador III et al and further in view of Emerson et al (U.S. Patent 4,612,416 A).

49. Regarding claim 24, the claim is set forth with the same limits as claim 22. Kupiec, Anderson et al & Meador III et al do not involve applications; so do not include the *format of message headers*. Emerson et al (column 13 lines 31-51) reads on the feature that *identification is one of a text string* (line 51), *a photograph, an audio sequence and a video sequence*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Emerson et al to the device/method of Kupiec, Anderson et al & Meador III et al so as to consolidate all messages by a particular category for ease of delivery and retrieval.

Kupiec, Anderson et al & Admitted Prior Art

50. Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al and further in view of Admitted Prior Art.

51. Regarding claim 25, the claim is set forth with the same limits as claim 1. Kupiec & Anderson et al do not mention *location*, but the instant application (last paragraph page 27) admits that the feature that *database is searchable to retrieve a*

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location, and wherein that retrieved location is "super-imposable" on one of a map, a video and a photograph.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of the Admitted Prior Art to the device/method of Kupiec & Anderson et al so as to avoid the lengthy prose that is required as the alternative to a pictorial description of a location.

52: Regarding claim 26, the claim is set forth with the same limits as claim 25.

Kupiec (30 in figure 1) reads on the feature of *a graphical output unit operable to send that map to that user.*

53. Regarding claim 27, the claim is set forth with the same limits as claim 25.

Neither Kupiec nor Anderson et al address *mapping a route*. The Admitted Prior Art (4th line from end page 27) reads on the feature of *a location system operable to determine a current location of a user, that location system is operable to trace a route from that current location to that retrieved location*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Admitted Prior Art to the device/method of Kupiec & Anderson et al so as to avoid the misdirection possible with complex written instruction.

Kupiec & Anderson et al

54. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec in view of Anderson et al.

55. Regarding claim 28, the claim is set forth with the same limits as claim 1. Kupiec (column 4 lines 28-30) reads on the feature that *database comprises results fields including one of a text string field, a photograph field and a video sequence field.*

56. Regarding claim 29, the claim is set forth with the same limits as claim 1. Kupiec reads on the feature that *question unit comprises a speech output operable to output questions in spoken form (31 in figure 1) to users connected via speech-enabled devices and a text output to output questions in text form (32 in figure 1) to users connected via text-enabled devices.*

Meador III et al & Admitted Prior Art

57. Claims 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meador III et al in view of the Admitted Prior Art.

58. Regarding claim 30, Meador III et al reads on the feature of *geographic location data (114 in figure 6) associated with personal identification data* but does not disclose *use in search queries to obtain an associated location.* The Applicant (page 27 last paragraph) reads on the features of the claim for a *"positioner" for determining a current*

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position of an enquirer (6th line from end page 27) receive that location data from that location database in response to a query involving that personal identification data; and (last line page 27) a route determiner for determining a route from that current position to that desired location using that location data.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of the Admitted Prior Art to the device/method of Meador III et al so as to add the ability to plan and personally meet with the conversant/correspondent.

59. Regarding claim 31, the claim is set forth with the same limits as claim 30. Meador III et al (column 3 line 30) reads on the feature that *location database is a directory associating subscriber identification data with subscriber address data.*

60. Regarding claim 32, the claim is set forth with the same limits as claim 30. Meador III et al does not address *mapping a route*. The Admitted Prior Art (with “map to guide”, 7th line from end page 27) reads on the feature of a *graphical output operable to output that route as a route on a map*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Admitted Prior Art to the device/method of Meador III et al so as to avoid the misdirection possible with complex written instruction.

61. Regarding claim 33, the claim is set forth with the same limits as claim 32. Meador III et al discloses *interactive* products but not in conjunction with geographical work. The Admitted Prior Art (by stipulating the "current location" in the 5th line from the end of page 27) reads on the feature that *graphical output is operable to output that route in real time*, which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method and/or teachings of Admitted Prior Art to the device/method of Meador III et al so as to ensure that the directions generated reflect the most current road and building configuration.

Meador III et al, Admitted Prior Art & Anderson et al

62. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meador III et al in view of the Admitted Prior Art and further in view of Anderson et al.

63. Regarding claim 34, the claim is set forth with the same limits as claim 30. Neither Meador III et al nor the Admitted Prior Art speak to determining whether the mode of output is *speech or text*. Anderson et al (claim 1 column 9 lines 56-64) reads on the feature of a *combined voice and text output operable to determine whether a user is connected via one of voice capable and text capable communication, and operable to output that route as a sequence of instructions in text and voice format in accordance with that determination*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of

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Anderson et al to the device/method of Meador III et al & the Admitted Prior Art so as to keep ROM requirement low by eliminating the need to program alternatives to patently obvious conditions.

64. Regarding claim 35, the claim is set forth with the same limits as claim 34.

Neither Meador III et al nor the Admitted Prior Art speak to the subject of *defined languages*. Anderson et al (column 21 lines 1-6) reads on the feature that *combined voice and text output is operable to output that sequence of instructions in a pre-selected language* which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Anderson et al to the device/method of Meador III et al & the Admitted Prior Art so as to permit multi-lingual access.

65. Regarding claim 36 as understood by the Examiner, the claim is set forth with the same limits as claim 35. Meador III et al as presented by the Admitted Prior Art (page 3 lines 10-18) reads on the feature that *sequence in that pre-selected language is obtainable from a corresponding sequence in a base language by real time automatic translation*.

66. Regarding claim 37, the claim is set forth with the same limits as claim 30.

Meador III et al does not discuss geographic matter. The Admitted Prior Art (with the disclosure of "GPS" on 6th line from end of page 27) reads on the feature that *location*

data comprises map co-ordinates which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method and/or teachings of the Admitted Prior Art to the device/method of Meador III et al so as to eliminate the need for the user to interpret the information provided.

67. Regarding claim 38, the claim is set forth with the same limits as claim 30.

Meador III et al does not discuss geographic matter. The Admitted Prior Art (with the association of the "GPS" to the current location - on the 6th & 5th lines from end of page 27 respectively) reads on the feature that that *positioned is operable to translate street address data into corresponding map co-ordinates* which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Admitted Prior Art to the device/method of Meador III et al so as to eliminate the need for the user to interpret the information provided.

Anderson et al & Kupiec

68. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al in view of Kupiec.

69. Regarding claim 39, Anderson et al (claim 1 column 9 lines 56-64) reads on the feature of *determining, as a connection type, whether a user is connected via one of a voice-based, a text-based and a combined voice-text capable communication link,*

eliciting input from a user via either one of voice-and text based communication according to that connection type (as, providing responsive in line 56) and (with the keyboard 5 in figure 1) reads on the feature of recognizing one of human speech and data input to that interface;

Anderson et al does not speak to *database queries*. Kupiec (figure 6 – with *reformulation requiring formulation*) reads on the feature of *a formulating a searchable query from that recognized input, and eliciting further input from a user unless a query sufficient for searching that database has been formulated* (column 11 line 6) and *searching a database using the sufficient searchable query* (7th line from bottom of column 6). It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Kupiec to the device/method of Anderson et al so as to apply voice recognition to the existing DBMS application product.

Anderson et al, Kupiec & Haddock et al

70. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al in view of Kupiec and further in view of Haddock et al (U.S. Patent 5,265,014 A).

71. Regarding claim 40, the claim is set forth with the same limits as claim 39. While Kupiec (column 2 line 4) addresses *ambiguities*, neither that nor Anderson et al do so by interacting with the database. Haddock et al (column 8 lines 2-14) read on the

features of *determining whether an ambiguous answer is received from that database, and if an ambiguous answer is received, then eliciting a further input from a user* (column 2 lines 10-11) so as to obtain an unambiguous answer from that database.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Haddock et al to the device/method of Anderson et al and Kupiec so as to allow a knowledgeable user to provide the wherewithal to approach irresolvable programmed query problems.

Claim Rejections - 35 USC § 102

Kupiec

72. Claims 41-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Kupiec.

73. Regarding claim 41 as understood by the Examiner, Kupiec (column 26 lines 36-51) reads on the feature of *remotely reading a database via a remote communication device having a communication mode*, prepared as follows:

- Kupiec (column 24 lines 22-26) reads on the feature of *entering a query request via that remote communication device in that communication mode*,
- Kupiec (column 24 lines 66-67) reads on the feature of *sending that query request to a communication interface in that communication mode*,

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- Kupiec (column 25 lines 30-33) reads on the feature of *receiving instructions in that communication mode for entering query items to form a database search query*,

74. Regarding claim 42, the claim is set forth with the same limits as claim 41.

Kupiec (column 1 line 43) reads on the feature that the *communication mode is a mode of voice communication*.

75. Regarding claim 43, the claim is set forth with the same limits as claim 41. By disclosing their invention with text-input applications (column 22 line 26), Kupiec (column 22 lines 30-31) teaches the feature that *communication mode is of text communication mode*.

76. Regarding claim 44, the claim is set forth with the same limits as claim 41. With the depiction of the *transcriber* converting speech to text in preparing queries (250 in figure 11), Kupiec teaches the feature that *database interrogation mode is a text communication mode*.

77. Regarding claim 45, the claim is set forth with the same limits as claim 42. With the disclosure of a *speech-to-phoneme converter* (50 in figure 2) *operable to convert a user speech input into query information for that database* (column 6 lines 53-55), Kupiec reads on the feature that database interrogation mode is phonemes communication mode.

Claim Rejections - 35 USC § 103

Kupiec & Meador III et al

78. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kupiec as applied to claim 41 above, and further in view of Meador III et al.

79. Regarding claim 46, Kupiec does not speak to the feature that the *database is interrogated by name*. Meador III et al reads on the feature that the *database is interrogated based on a person's name (column 4 lines 50-65)*.

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Meador III et al to the device/method of Kupiec for prompting user to speak name and location of sought party, and digitizing responses before feeding them to speech recognition devices, whose outputs are used to search database for corresponding number as cited by *DERWENT 1997-319358* in the prior art made of record with the previous action and not relied upon but considered pertinent to applicant's disclosure at that time.

Conclusion

80. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

81. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel A. Nolan at telephone (703) 305-1368 whose normal business hours are Mon, Tue, Thu & Fri, from 7 AM to 5 PM.

If attempts to contact the examiner by telephone are unsuccessful, supervisor Richemond Dorvil can be reached at (703)305-9645.

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The fax phone number for Technology Center 2600 is (703)872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE". Formal response to this action may be faxed according to the above instructions,

or mailed to: Mail Stop AF (or CPA, etc. – see Official Gazette, 04 November 2003)
P.O. Box 1450
Alexandria, VA 22313-1450

or hand-deliver to: Crystal Park 2,
2121 Crystal Drive, Arlington, VA,
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office at telephone number (703) 306-0377.

Daniel A. Nolan
Examiner
Art Unit 2654

DAN/d
February 23, 2004


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER